

We claim:

- 1 1. An indicator for detecting wear to at least one selected part in a semiconductor
2 manufacturing environment, the indicator comprising:
3 a selected material having a selected thickness;
4 wherein said indicator degrades upon exposure to the semiconductor
5 manufacturing environment at a fixed rate relative to the wear of the selected part; and,
6 wherein the indicator displays a visual indication of wear of the select part, said
7 visual indication being discernible by an automated detection device.

- 1 2. The indicator of claim 1 wherein said selected material is the same material as the
2 selected part.

- 1 3. The indicator of claim 1 wherein said visual indication comprises a distortion in
2 the shape of said indicator.

- 1 4. The indicator of claim 1 wherein said indicator is affixed in close proximity to the
2 selected part on a work stage of the semiconductor manufacturing process.

- 1 5. The indicator of claim 1, wherein said selected material is selected form a group
2 of materials that have known, fixed wear characteristics relative to the note of wear
3 exhibited by the material composing the selected part.

1 6. A method for detecting wear to at least one selected part in a semiconductor
2 manufacturing environment, the method comprising:
3 providing an apparatus for processing a product comprising the at least one
4 selected part;
5 providing a wear indicator comprising a selected material having a selected
6 thickness;
7 exposing said wear indicator to the semiconductor manufacturing environment
8 which degrades said wear indicator at a fixed rate relative to the wear of the selected part
9 of said apparatus; and,
10 calculating the amount of wear to the selected part of said apparatus by examining
11 said wear indicator with an automated detection device.

1 7. The method of claim 6 wherein said selected material is the same material as said
2 selected part.

1 8. The method of claim 6 wherein said visual indication comprises a distortion in the
2 shape of said indicator.

1 9. The method of claim 6 wherein said indicator is affixed in close proximity to the
2 selected part on a work stage of the semiconductor manufacturing process.

1 10. The method of claim 6 wherein said selected material is selected from a group of
2 materials that have known, fixed wear characteristics relative to the rate of wear exhibited
3 by the material composing the selected part.

1 11. An indicator for detecting wear to at least one selected part in a non-selective
2 material removal system, the indicator comprising:
3 a selected material having selected thickness;
4 wherein said indicator degrades upon exposure to the non-selective material
5 removal system at a fixed rate relative to the wear of the selected part; and
6 wherein the indicator displays a visual indication of wear to the selected part, said
7 visual indication being discernible by an automated detection device.

1 12. The indicator of claim 11 wherein said selected material is the same material as
2 the selected part.

1 13. The indicator of claim 11 wherein said visual indication comprises a distortion in
2 the shape of said indicator.

1 14. The indicator of claim 11 wherein said indicator is affixed in close proximity to
2 the selected part on a work stage of the semiconductor manufacturing process.

1 15. The indicator of claim 11 wherein said selected material is selected from a group
2 of material that have known, fixed wear characteristics relative to the rate of wear
3 exhibited by the material composing the selected part.

1 16. A method for detecting wear to at least one selected part in a non-selective
2 material removal system, the method comprising:
3 providing an apparatus for processing a product comprising the at least one
4 selected part;
5 providing a wear indicator, comprising a selected material having a selected
6 thickness;
7 exposing said wear indicator to a non-selective material removal environment
8 which erodes said wear indicator at a fixed rate relative to the wear of the selected parts
9 of said apparatus;
10 calculating the amount of wear to the selected part of said apparatus by examining
11 said wear indicator with an automated detection device.

1 17. The method of claim 16 wherein said selected material is the same material as the
2 selected part.

1 18. The method of claim 16 wherein said visual indication comprises a distortion in
2 the shape of said indicator.

1 19. The method of claim 16 wherein said indicator is affixed in close proximity to the
2 selected part on a work stage of the semiconductor manufacturing process.

1 20. The method of claim 16 wherein said selected material is selected from a group of
2 materials that have known, fixed wear characteristics relative to the rate of wear exhibited
3 by the material composing the selected part.